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Ethnobiological study of the plants used in the healing practices of an indigenous people *Tau Taa Wana* in Central Sulawesi, Indonesia

S. Khoirul Himmi^{a,b*}, M. Alie Humaedi^c, Sri Astutik^d^aResearch Institute for Sustainable Humanosphere (RISH), Kyoto University, Gokasho, Uji, Kyoto 611-0011, Japan^bResearch and Development Unit for Biomaterials, Indonesian Institute of Sciences (LIPI), Jl. Raya Bogor KM. 46, Cibinong, Bogor 16911, Indonesia^cResearch Center for Society and Culture, Indonesian Institute of Sciences (LIPI), Jl. Gatot Soebroto 10, Jakarta 12710, Indonesia^dUnit for Plant Conservation, Cibodas Botanical Garden, Indonesian Institute of Sciences (LIPI), Cipanas 43252, Indonesia

Abstract

Documentation of indigenous knowledge through ethnobotanical information is very important for the conservation of biodiversity and biological resources. Indigenous knowledge is very unique in every culture, and this study aimed to conserve indigenous knowledge which was traditionally passed down through oral tradition. This study provided significant ethnobiological information of medicinal plants used in *mobolong*, a healing practice of an indigenous people, *Tau Taa Wana*, in Central Sulawesi, Indonesia. *Mobolong* is considered by *Tau Taa Wana* as the most important cultural identity and distinguishing them from the outsiders. We gathered information of local names of medicinal plants, identified plant species and collected herbarium specimens. Structured interviews were conducted with *Tau valia*, the traditional healer, to record the native knowledge of herbal treatment in medicinal and healing practices.

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* Corresponding author. Tel.: +62-21-87914511; fax: +62-21-87914510.

E-mail address: khoirul_himmi@biomaterial.lipi.go.id

1. Introduction

Tau Taa Wana are an indigenous people from interior region of eastern Central Sulawesi, Indonesia, living in a scatter and an isolated settlement (*lipu*, in wana language) which is geographically dispersed in a peninsula from the east and northeast Morowali Nature Reserve, Bulan Plains and Mountain of Mosses in Tojo Una-Una Region [1]. The word “*Tau*” means people and word “*Taa*” represents the tribe identity, thus *Tau Taa* can be referred as people of *Taa*. Word “*wana*” is drawing different ethnolinguistic descriptions. People of *Taa* speak Pamona language [2] in *Taa* dialects. Atkinson argued that the word “*wana*” applies specifically to an area in the vicinity of *Tonku Tu'a*, the old montain considered as their homeland [3], and it is used to distinguish *Tau Taa Wana* which inhabiting the interior of peninsula from those in the coastal region. In another article, Pitopang and Safaruddin [1] described “*wana*” as forest, rooted it from other languages of the area, including Javanese and the more closely related Bare-e language. Term “*wana*” seems applied by the outsider to *Taa* people who inhabit the rugged forest interior [3, 4].

Unlike previous articles which used term “*wana*” as representation of them [3, 5, 6, 7], we decide to use the term “*Taa Wana*” throughout this paper. Term “*wana*”, apart from differences in ethnolinguistic descriptions, does refer to the place, not the people. In our field observations, we hardly encountered people of *Tau Taa Wana* identified themselves as “*wana*”, but they rather consistently called themselves as “*orang Taa*” (literally translated as the people of *Taa*). However, solely call them “*Taa*” will cause ambiguity with *Topo Taa*, the people of *Taa* which inhabit coastal region of peninsula (see Fig. 1.a).

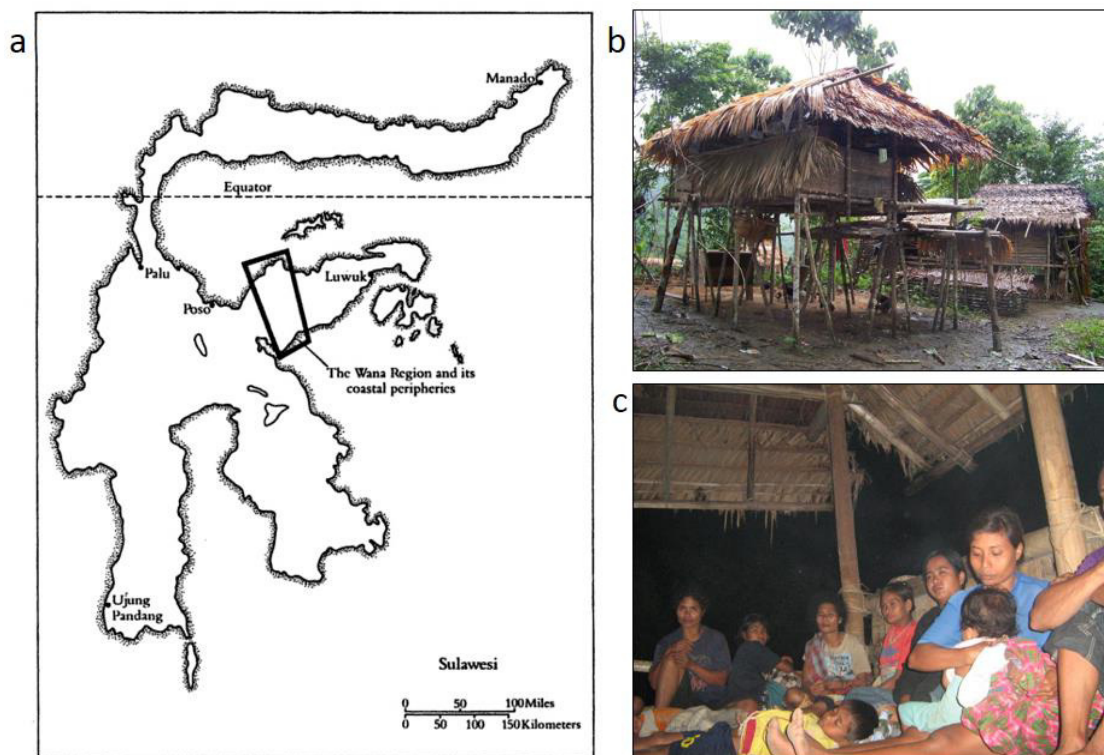


Fig. 1. (a) The map of *Tau Taa Wana* region, source: The Art and Politics of Wana Shamanism [5]; (b) a typical house in Lengasa, a settlement of *Tau Taa Wana*; (c) Mogombo, a hospitality gathering to greet visitor.

This paper is elaborating *Mobolong*, a traditional healing ritual of *Taa Wana*, from ethnobiological perspective. *Mabolong* is considered by *Taa Wana* as the most important cultural identity beyond its ritual practices, and distinguishing them from the outsiders. *Mobolong* is perceived by Atkinson as a shamanistic practice [3, 4], the

healing ritual which is performed as consequence of their living in isolated settlements, far from doctors and sufficient medical facilities. However, as *Mobolong* use plants in addition to the dances and singing of spells, we argue that ethnobiological information of the plants is very important for documentation of indigenous knowledge. The practice itself is an important ethnobiological knowledge as the expression of cultural culmination from their empirical experience.

Indigenous knowledge is very unique in every culture, and this study aimed to conserve indigenous knowledge which was traditionally passed down through oral tradition. It does represent the complex knowledge which emerges from their interaction with local environment and their ethical perception on plants and other natural resources. This study will focus on presenting the ethnobiological information of plants used in *Mobolong*, by emphasizing the local name and botanical identification and the usage of the plants for healing purpose and medicinal benefit.

2. Data Collection

The study was conducted on three settlements of *Taa Wana*: Lengkasa, Ratuvoli, and Salaki in June-July 2010 and October 2010, followed by the expedition in October 2011. The understanding on *Mobolong* and its practices were carried out by semi-structured interviews with traditional healer of each settlements. Traditional healer, *Tau valia*, is a person who is believed by *Taa Wana* community to have supernatural abilities and performing *Mobolong*. The plants collection were supervised by *Tau valia* himself in several locations: inside *pengale* (forest); or *nahvu pakuli*, an area for planting the domesticated medicinal plants. Botanical identification was conducted *in situ* by a plant taxonomist from Indonesian Institute of Sciences, LIPI. This procedure allowed scientific identification and avoided possible errors when collecting and identifying the ethnospecies materials.

Various information in regard of cultural perception and the use on medicinal plants, and reciprocal interactions between people and natural environment were carried out by interviewing community leaders: *Tau Boros*, a leader for *adat* (law, custom) and ethical issue; *Woron Tana*, a person in charge for agro-farming matters, and several *Taa Wana* people who accompanied the team and helped to carry logistics during expedition.



Fig. 2. (a) an interview with Apa Ninjang, a *Tau valia* of Lengkasa, to record information of the medicinal plants; (b) the expedition for exploration and collecting of medicinal plants, supervised by Apa Ninjang himself.

3. Healing practices: *Pakuli* and *Mobolong*

Indigenous healing practice of *Taa Wana* can be classified into two categories: *pakuli* and *mobolong*. *pakuli* is a kind of treatment for physical illness by medicine, medicinal plants or other materials as well. The recipes and knowledge of *pakuli* are derived from empirical experience of *Tau valia*, as well as information from *tau boros*, the older generation, or *katuntu*, a story of earlier age and previous culture inherited in a speech and poem.

While treatment by *pakuli* is non-ritual healing practice, *mobolong* is a supranatural healing ceremony conducted by *Tau valia*, who invites divine power of spirit familiars to cure sickness and disease of other individuals. *Mobolong* has literal meaning as “drum”, named after the two-skinned drum (*bolong*) that along with bronze gongs

accompanies *Tau valia* as they dance [5]. The root of *Mobolong* cannot be separated from *halaik*, the indigenous religion of *Taa Wana*. They believe that *Pu'e* (God), the owner of universe, will grant the appeal of *Tau valia* to cure *mepojo* (the patient). According to Apa Ninjang, when performing *mobolong*, a *Tau valia* receives whisper of revelation from *Pu'e*, and even foresees whether the patient can be cured or not.

Mobolong consists of *bakum valia* and verbal knowledge (*do'a*, spells). *Bakum valia* is difficult to be distinguished from *pakuli*, as both are plant substances. The easier understanding is that the former has special use for *mobolong*, apart from its use in therapeutic and physical healing treatment, as *pakuli* is. *Bakum valia* is understood as food for spirit familiars, to whom *Tau valia* appeals in curing illness. Atkinson focused on *mobolong* as the center of her ethnographic study and argued that knowledge of *pakuli* is not essential for *mobolong* [3]. However, we argued here that traditional healing practices should be analyzed not only from anthropological perspective (focus on *Tau valia*, the healer, and their practices), but also from ethnobiological perspective by recording the traditional knowledge regarding plants utilization.

Plants play an important role in rituals and spiritual practices and are a recurring element in myths, legends, and stories [8]. The indigenous knowledge of *Taa Wana* in using plants is unique, and may differs from other regions, because of their understanding of *lino*, the universe, relate to the natural environment in ways fundamentally different from that found in the different regions. Indigenous people pass down information from generation to generation by oral tradition through stories without any documentation. By documenting botanical information of medicinal plants used in *mobolong* will help to preserve and protect that of important knowledge.

4. Ethnobotanical information of medicinal plants used in *mobolong*

Documentation of indigenous knowledge through ethnobotanical information is very important for the conservation biological resources. Moreover, information of the local names of plants and utilization of these plants has significant bioculture benefits [9]. Indigenous people develop their traditional knowledge in a practical context in corresponding of daily necessity. Thus, documentation of medicinal plants, even in a very simple record, can provide valuable contribution.

Table 1. Ethnobotanical information of medicinal plants used for *mobolong*, a traditional healing practice of *Tau Taa Wana*

No.	Medicinal Plants			Ailment*	Ethnomedicinal information**
	Local name	Scientific name	Location		
1.	<i>Pantea</i>	<i>Aglonema sp.</i>	Lengkasa, Salaki	-	<i>a bakum valia</i> for <i>mobolong</i> , chewed by <i>Tau valia</i>
2.	<i>Banelio</i>	<i>Hiptis rhomboidea</i>	Lengkasa	abdominal symptoms, cough and tootache	banelio roots are finely ground, combined with areca nut, betel leave and whiting to be attached at the stomach of postpartum woman, believed to stop bleeding.
3.	<i>Luibia</i>	<i>Celtis cinnamomea</i>	Lengkasa, Salaki	abdominal symptoms	Protect person from bad spirits and misfortune
4.	<i>Kaju puyu kalen</i>	<i>Cloronthus erectus</i>	Lengkasa	Diarrhea	<i>a bakum valia</i> for <i>mobolong</i>
5.	<i>Tivo</i>	<i>Andropogon nardus</i>	Lengkasa	Fracture	used in combination with red onions and spells to heal the <i>mata tinggi</i> , an illness where people suddenly fell unconscious and foaming at the mouth with the eyes look up high.
6.	<i>Boleng kinavi</i>	<i>Syzygium sp.</i>	Lengkasa	-	believed to accelerate contraction in childbirth and for safe delivery.
7.	<i>Tatalo</i>	<i>Homalomena sp</i>	Lengkasa	abdominal symptoms	<i>a bakum valia</i> for <i>mobolong</i>
8.	<i>Kaju kuru</i>	<i>Buehmeria sp.</i>	Ratuvoli	toothache, thrush	<i>a bakum valia</i> for <i>mobolong</i> , healing serious illness
9.	<i>Maro</i>	<i>Garnicia sp.</i>	Ratuvoli	-	<i>a bakum valia</i> for <i>mobolong</i> , believed to have an effect for stamina recovery

*medicinal plants were used as *pakuli* for treating physical illness.

**ethnomedicinal information records the use of the plants as *bakum valia*, and its metaphysical benefit.

Table 1 presents the botanical information of medicinal plants used in *mobolong* and the ethnomedicinal utilization of the plants in healing practices. During our expedition, we have successfully identified 59 species of medicinal plants used by *Taa Wana* for treating various diseases such as abdominal symptoms, headache, wounds, cough, and other internal diseases (Himmi et al., *unpublished data*), with 9 species were specially used as *bakum valia* in *mobolong*. Herbarium voucher of medicinal plants are presented on figure 3. Herbarium vouchers of Kaju kuru (*Buehmeria* sp.) and maro (*Garnicia* sp.) did not collected because of the difficulties during survey. Both species were identified from *Pengale Kapali*, a sacred forest protected by *Taa Wana* custom, near Ratuvoli settlement. We were allowed to see the plants but not allowed to take any specimens from that forest.

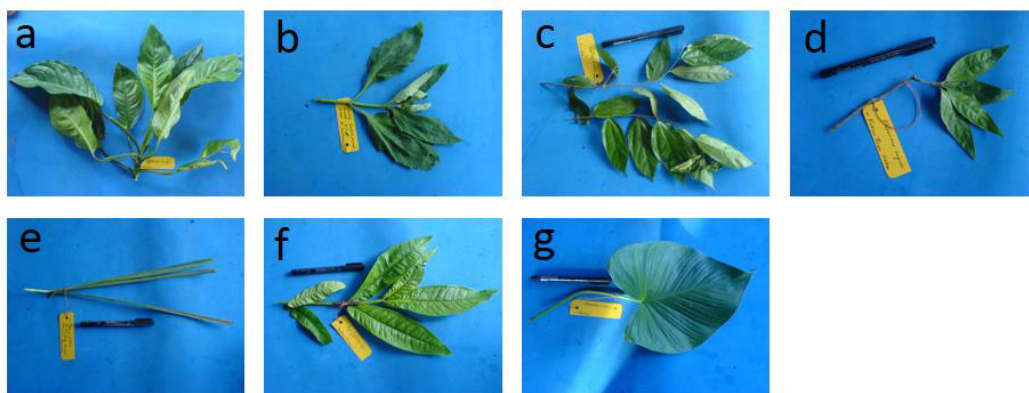


Fig. 3. Herbarium voucher of medicinal plants used in *mobolong*: (a) Pantea; (b) banelio; (c) Luibia; (d) Kaju Puyu Kalen; (e) Tivo; (f) Boleng Kinavi; (g) Tatalo.

The medicinal plants may be boiled and drunk, directly eaten, chewed as part of a betel quid, rubbed on the body. *Taa Wana* believe that illness is not merely physical disorders, but also caused of imbalance in non-physiological elements. An illness leads to suffering the body, soul and spirit as well. Human (*Tau*), land (*Tana*), water (*ue*), tree (*kaju*) are viewed as physical natures which cannot be separated from the control of metaphysical spirit, namely *Lamba So* (deity of land), *Malindu Maya* (deity of water). Therefore, their traditional healing practice combines of physical elements (*pakuli*, *bakum valia*) and metaphysical elements (*do'a*, spells). Knowledge of medicinal plants is believed come from spirits, emphasize the conception about the effectiveness of esoteric approach. *Mobolong* is the highest form of healing knowledge as it involves communication with spirit familiars and supernatural powers. *Mobolong* requires a supremely faith from patient toward healer, and faith in the medical treatment is wonderfully therapeutic, and in an invincible an infallible force carries even more healing power [10].

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